Notice of Allowability	**Application No.** 09/921,936	**Applicant(s)** RAO ET AL.
	Examiner OLEG SURVILLO	**Art Unit** 2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Applicant's amendment and remarks after non-final rejection, response dated 02/08/10.*

2. ☒ The allowed claim(s) is/are *1-6, 9-12, 17, 22-26, 29-33, 38-42, 45-48, 81, 84, and 85, renumbered as claims 1-33.*

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

    Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20100521* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

/Philip C Lee/ Acting Supervisory Patent Examiner, Art Unit 2442

EXAMINER'S AMENDMENT / COMMENT

Examiner's Amendment

Examiner's amendment to the record appears below. Should the changes be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be filed no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephonic interview with Myunggon Hong, Reg. No. 65,034 on May 21, 2010.

In the claims:

Claims 1, 17, 23, 33, 38-42, 45-48, and 81 are currently amended.

Claims 1-6, 9-12, 17, 22-26, 29-33, 38-42, 45-48, 81, 84, and 85 remain in the application.

1.   (Currently Amended) A system, comprising:
        a local area network management system ~~to manage and configure~~ managing and configuring a network of routers;
        a wide area network management system ~~to manage and configure~~ managing and configuring a network of switches, the wide area network management system separate from the local area network management system; and
        address registration information ~~to be~~ appended to a message sent between a router of the network of routers and a switch of the network of switches over a connection between the router and the switch, wherein the local area network management system uses the address registration information in mapping the network of switches by accessing each switch in the network of switches, wherein the mapping by the local area network management system of the network of switches comprises:
                acquiring the address registration information from the router when the message is received at the router from the switch;
                accessing a management information base (MIB) associated with the switch using the address registration information;
                accessing other MIBs, each of the other MIBs associated with one of other switches of the network of switches, using the MIB associated with the switch from which the message is sent; and
                building a map of entire switches of the network of switches based upon accessing each of the other switches;

wherein the local area network management system configures the network of switches when the map of entire switches of the network of switches is built from the local area network management system.

2.   (Original) The system of claim 1, wherein the address registration information comprises an interface index.

3.   (Previously Presented) The system of claim 2, wherein the interface index comprises a slot number from which the message was sent.

4.   (Previously Presented) The system of claim 2, wherein the interface index comprises a port number from which the message was sent.

5.   (Original) The system of claim 1, wherein the address registration information comprises an Internet Protocol address.

6.   (Previously Presented) The system of claim 1, wherein the address registration information is sent in a data packet, wherein the data packet comprises spare bytes.

7.   (Canceled).

8.   (Canceled).

9.   (Previously Presented) The system of claim 1, wherein the message is an enhanced local management interface message.

10.   (Previously Presented) The system of claim 1, wherein the message is sent when the network of switches and the network of routers are first configured.

11.   (Previously Presented) The system of claim 1, wherein the message is sent when the network of switches or the network of routers has a change in configuration.

12.   (Previously Presented) The system of claim 1, wherein the message is sent at a regular interval.

13-16. (Canceled).

17.   (Currently Amended) A computer-implemented method, comprising:
        appending address registration information to a message;
        sending the message between a router of a router network and a switch of a switch network, the router network controlled by a local area network management system and the switch network controlled by a wide area network management system separate from the local area network management system; and
        mapping, using the address registration information, the router network from the wide area network management system, by accessing each router in the router network, wherein the mapping comprises:
                acquiring the address registration information from the switch when the message is received at the switch from the router;
                accessing a management information base (MIB) associated with the router using the address registration information;
                accessing other MIBs, each of the other MIBs associated with one of other routers of the router network, using the MIB associated with the router from which the message is sent; and
                building a map of entire routers of the router network based upon accessing each of the other routers; and
                configuring the router network using the wide area network management system when the map of entire routers of the router network is built from the wide area network management system.

18-21. (Canceled).

22.   (Original) The method of claim 17, wherein the address registration information comprises an Internet Protocol address.

23.   (Currently Amended) The method of claim 17, wherein the address registration information comprises an interface ~~network~~ index.

24.   (Previously Presented) The method of claim 23, wherein the interface index comprises a slot number from which the message was sent.

25.   (Previously Presented) The method of claim 23, wherein the interface index comprises a port number from which the message was sent.

26.   (Previously Presented) The method of claim 17, wherein the address registration information is sent in a data packet, wherein the data packet comprises spare bytes.

27.   (Canceled).

28.   (Canceled).

29.   (Previously Presented) The method of claim 17, wherein the message is an enhanced local management interface message.

30.   (Previously Presented) The method of claim 17, wherein the message is sent when the network of switches and the network of routers are first configured.

31.   (Previously Presented) The method of claim 17, wherein the message is sent when the network of switches or the network of routers has a change in configuration.

32.   (Previously Presented) The method of claim 17, wherein the message is sent at a regular interval.

33.   (Currently Amended) A machine-readable ~~tangible~~ non-transitory storage medium ~~tangibly embodying~~ storing a sequence of instructions executable by the machine to perform operations comprising:

appending address registration information to a message;

sending the message between a router of a router network and a switch of a switch network, the router network controlled by a local area network management system and the switch network controlled by a wide area network management system separate from the local area network management system; ~~and~~

mapping, using the address registration information, the router network at the wide area network management system by accessing each router in the router network, wherein the mapping comprises:

acquiring the address registration information from the switch when the message is received at the switch from the router;

accessing a management information base (MIB) associated with the router using the address registration information;

accessing other MIBs, each of the other MIBs associated with one of other routers of the router network, using the MIB associated with the router from which the message is sent; and

building a map of entire routers of the router network based upon accessing each of the other routers; and

configuring the router network using the wide area network management system when the map of entire routers of the router network is built from the wide area network management system.

34-37. (Canceled).

38.   (Currently Amended) The machine-readable tangible non-transitory storage medium of claim 33, wherein the address registration information comprises an Internet Protocol address.

39.   (Currently Amended) The machine-readable tangible non-transitory storage medium of claim 33, wherein the address registration information comprises an interface index.

40.   (Currently Amended) The machine-readable tangible non-transitory storage medium of claim 39, wherein the interface index comprises a slot number from which the message was sent.

41.   (Currently Amended) The machine-readable tangible non-transitory storage medium of claim 39, wherein the interface index comprises a port number from which the message was sent.

42.   (Currently Amended) The machine-readable tangible non-transitory storage medium of claim 33, wherein the address registration information is sent in a data packet, wherein the data packet comprises spare bytes.

43.   (Canceled).

44.   (Canceled).

45.   (Currently Amended) The machine-readable tangible non-transitory storage medium of claim 33, wherein the message is an enhanced local management interface message.

46.   (Currently Amended) The machine-readable ~~tangible~~ non-transitory storage
medium of claim 33, wherein the message is sent when the network of switches and the
network of routers are first configured.

47.   (Currently Amended) The machine-readable ~~tangible~~ non-transitory storage
medium of claim 33, wherein the message is sent when the network of switches or the
network of routers has a change in configuration.

48.   (Currently Amended) The machine-readable ~~tangible~~ non-transitory storage
medium of claim 33, wherein the message is sent at a regular interval.

49-80. (Canceled)

81.   (Currently Amended) A computer-implemented method, comprising:
        appending address registration information to a message;
        sending the message between a router of a router network and a switch of a
switch network, the router network controlled by a local area network management
system and the switch network controlled by a wide area network management system
separate from the local area network management system;
        mapping, using the address registration information, the router network from the
wide area network management system by accessing each router in the router network,
~~when the message is received at the switch from the router,~~ wherein the mapping the
router network from the wide area network management system comprises:
            acquiring the address registration information from the switch when the
            message is received at the switch from the router;
            accessing a management information base (MIB) associated with the
            router using the address registration information;
            accessing other MIBs, each of the other MIBs associated with one of other
            routers of the router network, using the MIB associated with the router from
            which the message is sent; and

building a map of entire routers of the router network based upon accessing each of the other routers;

configuring the router network using the wide area network management system when the map of entire routers of the router network is built from the wide area network management system;

mapping, using the address registration information, the switch network at the local area network management system by accessing each switch in the switch network, ~~when the message is received at the router from the switch,~~ wherein the mapping the switch network from the local area network management system comprises:

acquiring the address registration information from the router when the message is received at the router from the switch;

accessing a management information base (MIB) associated with the switch using the address registration information;

accessing other MIBs each associated with one of other switches of the switch network, using the MIB associated with the switch from which the message is sent; and

building a map of entire switches of the switch network based upon accessing each of the other switches; and

configuring the switch network using the local area network management system when the map of entire switches of the switch network is built from the local area network management system.

82.   (Canceled).

83.   (Canceled).

84.   (Previously Presented) The system of claim 1, wherein the switch is to send the message to the router before the switch receives a request for the address registration information from the router.

85.   (Previously Presented) The method of claim 17, wherein the router is to send the
message to the switch before the router receives a request for the address registration
information from the switch.

Allowed Claims

Claims 1-6, 9-12, 17, 22-26, 29-33, 38-42, 45-48, 81, 84, and 85 are allowed.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

none of the qualifying prior art references of record, taken alone or in

combination, disclose or reasonably suggest: a combination of elements as claimed in

independent claims 1, 17, 33, and 81, wherein mapping by the local area network

management system (or the wide area network management system) comprises among

other things, the step of accessing other MIBs, each of the other MIBs associated with

one of other switches (or routers) of the network of switches (or routers), using the MIB

associated with the switch (or router) from which the message is sent, wherein the local

area network management system (or the wide area network management system)

configures the network of switches (or routers) when the map of entire switches (or

routers) of the network of switches (or routers) is built from the local area network

management system (or the wide area network management system).

Applicants argued in the Remarks dated 02/08/10 at page 18 as filed, that "ATM

Device A" and "ATM Device B" in ILMI Spec are all either ATM switch devices or, at

most, router devices that belong to the same network of either switches or routers. ILMI

Spec does not, however, teach or suggest that "ATM Device A" is a switch of a switch

network while "ATM Device B" is a router of a router network, much less that the router

network is managed by a local area network management system while the switch

network is managed by a wide area network management system this is separate from

the local area network management system. This argument is persuasive.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to OLEG SURVILLO whose telephone number is

(571)272-9691. The examiner can normally be reached on M-Th 9:30am - 7:00pm; F

10:00am - 6:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Philip Lee can be reached on 571-272-3967. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Oleg Survillo   /Philip C Lee/
                                                          Acting Supervisory Patent
Phone: 571-272-9691   Examiner, Art Unit 2442